

Often times, when I think about my everyday life of ranching, the term technology doesn't always cross my mind. What comes to mind when I think about ranching is late nights checking broodmares expecting to foal, saddling a young horse on cold morning, and having the privilege of playing a small role in the equine reproductive process. The definition of technology is "the application of scientific knowledge for practical purposes." Once I understood the definition of technology, I realized that I use advancements in technology every day. A few more prominent uses of technology that affect me include the ultrasound, the Equilume light mask, and Soft Ride boots. My name is Tres Schaack; I live on a ranch north of Edgemont and raise and train horses with my family. These technological advancements are not only for convenience or ease, but they have almost become a necessity.

The ultrasound is by far my personal favorite and most useful when it comes to raising horses. The ultrasound is best described as sound or other vibrations having an ultrasonic frequency. This advanced machine uses ultrasonic waves to construct a black and white image to observe. It is a fascinating science that is continually being improved. With the help of an ultrasound machine I can detect the exact moment a mare will ovulate, giving me the opportunity for a high percentage conception to occur. Though the ultrasound has many purposes, my favorite is observing embryos. This technology is so advanced I can detect a pregnancy at just fourteen days, I can track progression and growth of the pregnancy, and I can also determine the sex of the foal before it is even born. I think it is so remarkable to know that I created that foal, confirmed the pregnancy, and then tracked the progression of the healthy pregnancy all with the help of an ultrasound. Without an ultrasound many of the things I do on a day to day basis would not be possible.

In order for me to be able to use an ultrasound, a mare has to be cycling. In other words, the mare has to be making follicles and preparing to ovulate. In order for a mare to do this there has to be a certain amount of daylight for her body to activate the hormones to start this process. This is a 100% natural process that usually occurs in the spring, but unfortunately, sometimes this South Dakota weather does not permit for enough sunlight. The Equilume light mask is an innovation to help with this problem. It's mask that has small lights near the eyes of the horse. The lights are set to stay on at certain times and it almost tricks the horse into thinking there is more sunlight in the day causing changes in the body to occur. One of these changes being, the mare beginning to cycle. This allows a mare to be bred earlier or later than normal, for a desired foaling date. So without this incredible advancement in technology I would not be able to obtain a preferred foaling date.

Lastly, I sometimes wrongfully place technology and digitalism in the same category. Technology can also include something that isn't digital but is using scientific knowledge for practical purposes. For instance, the SoftRide boot. It is simply put, and custom gel orthotic for a 1,200lb. animal. Horses are on their feet most of their life, and like us, it can lead to pain and discomfort. I appreciate just how great my feet and back feel when I'm wearing orthotics, so I can imagine how it feels to a horse. It is fascinating to see such incredible uses of technology in my ranching lifestyle.

The ranching lifestyle and horses are what I live and breathe every day. I can now say that technology does play a role in ranching and I don't know what I would do without it. I also think as humans we have used advancements in technology to our advantage, but I am very pleased to see the animals I care so much about being able to benefit from our wealth of knowledge.